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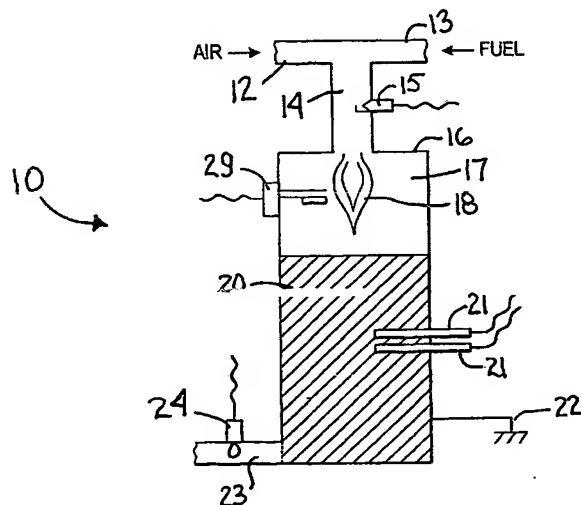
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(54) Title: BURNER CONTROL SENSOR CONFIGURATION



(57) Abstract: In domestic installations of any type of furnace or equivalent, proof of lean combustion is necessary to satisfy requirements of certification agencies. Exhibiting proof of lean combustion during the operation of an integrated fuel reformer and fuel cell system can be problematic because the point of combustion and its nature may shift during operation. In addition, the preferred ratio of fuel to air in these fuel-reforming systems is often near a stoichiometry of one. In the present invention, the combination of a flame-detecting device, a temperature sensing device and an oxygen or hydrocarbon sensor is used to verify the occurrence of combustion, and show proof of lean combustion.



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